

REMARKS

Summary of Claim Status

Claims 1, 3-18, and 20-26 are pending in the present application after entry of the present amendment. Applicants have cancelled Claims 2 and 19, thereby rendering the rejection of these claims moot. Applicants note that the Office Action summary states that Claims 1-26 are rejected. The body of the Office Action, however, states that Claims 1-14 and 17-26 are rejected, and that Claims 15 and 16 are objected to as depending from a rejected base claim, but would be allowable if properly rewritten in independent form. Applicants have therefore assumed that the information noted on the summary sheet is incorrect, and the remainder of this response is based on this assumption.

Applicants respectfully request favorable reconsideration of the claims and withdrawal of the pending rejections and objections in view of the present amendment and in light of the following discussion.

Rejections Under 35 U.S.C. § 102

Claims 1-11, 13, 14, and 17-26 are rejected under 35 U.S.C. § 102(b) as being anticipated by Nicolai, U.S. Patent No. 5,198,707 ("Nicolai"). Applicants respectfully traverse this rejection with respect to all claims.

Applicants have amended Claim 1 to incorporate the limitation of Claim 2, and have canceled Claim 2. As amended, Claim 1 now recites "an output buffer, wherein an output terminal of the output buffer is coupled to the I/O pad." Applicants respectfully submit that Nicolai does not teach or even suggest such a feature.

With respect to Claim 2, the Examiner stated: "Nicolai (fig 1) disclose a test configuration comprising an output buffer, wherein an output terminal of the output buffer is coupled to the i/o pad." However, the Examiner did not cite any specific element in Figure 1 of Nicolai that corresponds to an output buffer, and Applicants submit that no such correspondence can be made. No element shown in Figure 1 of Nicolai, or any other portion of Nicolai, is an output buffer, as recited in amended Claim 1.

In fact, Applicants submit that Nicolai actually teaches away from a test structure having an output buffer as claimed in Claim 1. As noted in Nicolai: "The pin used to define a mode of operation of the integrated circuit from the exterior is designated by the reference 10. It can be placed, by external action, in three possible states." (Nicolai at col. 2, lines 54-57). That is, pin 10 of Nicolai is an input only pin that is designed to receive an external signal, and therefore cannot have an output buffer, since an output buffer would cause Nicolai's circuit to fail for its intended purpose.

More specifically, the circuit disclosed in Nicolai is designed to detect one among three states on a pin of an integrated circuit for the purpose of externally defining a particular mode of operation (e.g., a test mode or a normal operation mode). (See, e.g., Nicolai at col. 1, lines 9-21 and col. 1 lines 58-61). Thus, Nicolai essentially describes an input circuit for detecting an external signal, which sets a mode of operation for an integrated circuit. It would be contradictory to have an output buffer having an output terminal coupled to the pin for such an input-only pin. Therefore, for at least these reasons, Applicants believe Nicolai does not teach the invention claimed in

Claim 1, and in fact teaches away from Claim 1. Applicants therefore respectfully request allowance of Claim 1.

Claim 3, which formerly depended from canceled Claim 2, has been amended to depend from Claim 1. Claims 3-11, 13, and 14 depend, either directly or indirectly, from Claim 1, and thus include all of the limitations of Claim 1. Claim 1 is believed to be allowable for the reasons presented above. Therefore, for at least the same reasons, Applicants believe Claims 3-11, 13, and 14 are also allowable, and respectfully request allowance of such claims.

With respect to Claims 17-26, the Examiner stated "Nicolai (fig 1) and Yanagawa et al. (fig 2) disclose a test configuration." Applicants have amended Claim 17 to incorporate the limitation of Claim 19, and have canceled Claim 19. Claim 17, as amended, recites "driving an output value at the I/O pad through an output buffer coupled to the I/O pad." As set forth above with respect to Claim 1, Nicolai does not teach or even suggest an output buffer coupled to an I/O pad, and thus it would be impossible for the structure disclosed in Nicolai to drive an output value at the I/O pad in the manner claimed in Claim 17. Furthermore, nothing in Yanagawa et al. remedies this deficiency in Nicolai. Yanagawa, in fact, merely relates to an interface unit for a tester. Therefore, Applicants believe Claim 17, as amended, is allowable over the cited references, and allowance of Claim 17 is respectfully requested.

Claims 18 and 20-26 depend, either directly or indirectly, from Claim 17, and thus include all of the limitations of Claim 17. Claim 17 is believed to be allowable for the reasons presented above. Therefore, for at least the same reasons, Applicants believe Claims 18 and

20-26 are also allowable, and respectfully request allowance of such claims.

Rejections Under 35 U.S.C. § 103

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nicolai in view of Yanagawa et al., U.S. Patent No. 6,348,810 ("Yanagawa"). Claim 12 depends from Claim 1, and thus includes all of the limitations of Claim 1. As stated above, Applicants believe that Nicolai does not teach or suggest the invention recited in Claim 1. Nothing in Yanagawa, which merely describes an interface unit for a tester, remedies the deficiencies of Nicolai. Therefore, Applicants believe Claim 12 is allowable, and allowance of Claim 12 is respectfully requested.

Objections

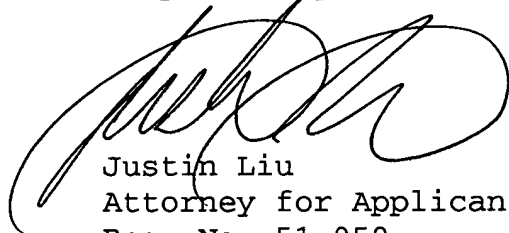
Claims 15 and 16 are objected to as being dependent from a rejected base claim, but are indicated as otherwise allowable. Applicants thank the Examiner for this acknowledgement of allowable subject matter.

Applicants have rewritten Claim 15 in independent form including all of the limitations of the base claim and any intervening claims. Therefore, Applicants believe Claim 15 is now in form for allowance. Claim 16 depends from Claim 15, and is thus also believed to be allowable. Therefore, Applicants respectfully request allowance of Claim 15 and 16.

Conclusion

No new matter has been introduced by any of the above amendments. In light of the above amendments and remarks, Applicant believes that Claims 1, 3-18, and 20-26 are in condition for allowance, and allowance of the application is therefore requested. If action other than allowance is contemplated by the Examiner, the Examiner is respectfully requested to telephone Applicants' attorney, Justin Liu, at 408-879-4641.

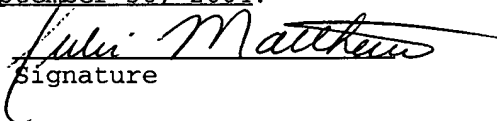
Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450, on September 30, 2004.

Julie Matthews
Name



Signature